ABSTRACT OF THE DISCLOSURE

To reduce the circuit area and cost of the integrated circuit for modem.   The RAM controller 5 performs such a control that the instructions are prefetched from the external instruction ROM to the instruction RAM 2 on a bank basis and the instruction RAM 2 is caused to operate as a cache memory for the external instruction ROM and the CPU and the hardware unit 1 are caused to the time-divisionally share part of banks of the instruction RAM 2.